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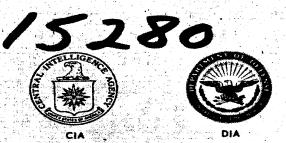
NPIC/R-918/64 November 1964

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TCS-8467/64 Copy 5 25 Pages

PHOTOGRAPHIC INTERPRETATION REPORT

POSSIBLE AMM-ASSOCIATED ACTIVITY AND OTHER INSTALLATIONS MOSCOW AREA, USSR,



25X1D

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TCS-8467, 64

PHOTOGRAPHIC INTERPRETATION REPORT

POSSIBLE AMM-ASSOCIATED ACTIVITY AND OTHER INSTALLATIONS, MOSCOW AREA, USSR,

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INTRODUCTION

This report describes changes and additions at the following installations, as requested by CIA requirement C-RR4-81,664: Moscow SAM Sites E05-1, E15-1, E24-1, and E33-1, the Naro-Fominsk Suspect Phased-Array Radar

and the Kirzhach Area Suspect Space-

Tracking Facility (Figure 1). (The latter has been previously reported 6/ as unidentified plus configurations.) All information herein is based on KEYHOLE photography since coverages on which the referenced reports dealing with the installations 1-6/ were based.

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MOSCOW SAM SITE E05-1

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This site (Figure 2) is located at 56-14-34N 38-35-05E, approximately 44 nautical miles (nm) northeast of Moscow. The last detailed NPIC report dealing with the site $\underline{1}$ was based on

a curved ditch was observed age. In east of it. On the coverage a road is discernible extending from the small northwest building toward the northwest side of the large building, as well as 2 scars or traces extending from the other small building to the triad service road.

25X1D

TRIAD AREA

Construction in the triad area continues, with exterior changes observed at 2 of the the roof of the small buildings. In northwest building (Figure 2, item 1) appeared incomplete, but by it appeared to have been completed. It was also ascertained on the coverage that the previously reported unidentified object on the roof of the large triad building is an elevated platform 40 feet square (item 2), similar to that observed in on the large triad

building at Site E15-1. 2/ Adjacent and parallel to the northeast end of the building is an unidentified building, 140 by 55 feet (item 3), resembling the buildings similarly positioned at Sites E15-1, E24-1, and E33-1. The building

at E05-1 was first observed on the

LAUNCH AREA

A cleared area of approximately 33,000 square feet (item 4), located between the fourth and fifth rib roads and on the north side of the centerline road, was first observed on the photography. By the clearing had been expanded to approximately 44,550 square feet.

25X1D

GUIDANCE AREA

No changes have been observed in the guidance area since

SUPPORT AREA

The following 7 buildings have been newly identified in the support area on the photography:

Building 140 by 65 feet, probably gable roofed (item 5)

Building 80 by 40 feet, probably gable roofed (item 6)

Possible batch plant 105 by 40 feet (item 7)

- 1 -

cover-

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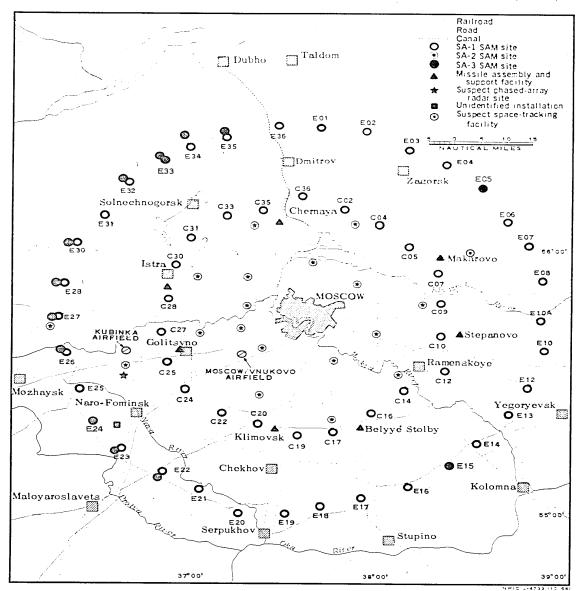


FIGURE 1. LOCATION OF INSTALLATIONS.

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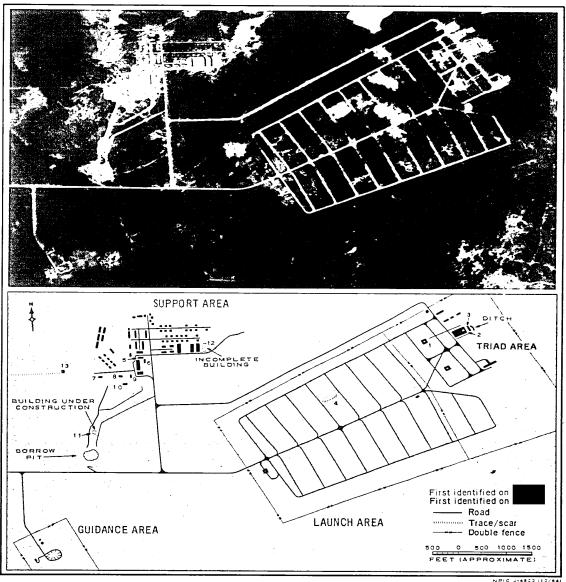


FIGURE 2. MOSCOW SAM SITE E05-1,

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Building 65 by 35 feet, probably gable roofed (item 8)

Building 55 by 30 feet, probably gable roofed (item 9)

Building 35 by 20 feet, undetermined roof configuration (item 10)

Building under construction (item 11).

Three walls are observed, two 125 and one 80 feet long.

It has been determined that 1 of the 195- by 40foot buildings previously reported as complete
(item 12) is incomplete, with no apparent evidence of construction activity. On the
photography, a ground trace or scar, which
can be observed approaching the site from the
west, appears to terminate at a structure
measuring approximately 55 by 25 feet (item

25X1D

MOSCOW SAM SITE E15-1

This site (Figure 3) is located at 55-09-50N 38-22-15E, approximately 44 nm southeast of Moscow. The last detailed NPIC report dealing with the site $2/^{\bullet}$ was based on photography of

Moscow. The last detailed NPIC report dealing with the site 2/* was based on photography of

expanded to approximately 73,000 square feet. Two revetments, one measuring approximately 185 by 135 feet (item 3) and the other 150 by 115 feet (item 4) have been observed on the north side of the ninth rib road. The larger revetment was first identified on

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25X1D

25X1D

TRIAD AREA

Construction has continued on the second level of the west triad building (Figure 3, item 1), and the roof appears nearly complete on the photography. No extensive exterior changes in the other 2 triad buildings were noted between the cover-

No apparent change has occurred in the guidance area between the coverages.

GUIDANCE AREA

SUPPORT AREA

No significant change has been observed in the support area between the and coverages. A ground trace or scar, first observed in approaches the site from the southeast, parallels the east side of the launch area, and terminates approximately 1,300 feet south of the support area in a field.

25X1D

25X1D

25X1D

A scarred area covering approximately 46,675 square feet (item 2) along the fifth rib road was observed on photography of

LAUNCH AREA

MOSCOW SAM SITE E24-1

Site E24-1 (Figure 4) is located at 55-21-04N 36-29-27E, approximately 45 nm southwest of *Except for NPIC 'R-836'64 (Sep 64), which touched on it briefly.

Moscow. The last detailed NPIC report dealing with the site 3/ utilized photography of Since then, 2 mis-

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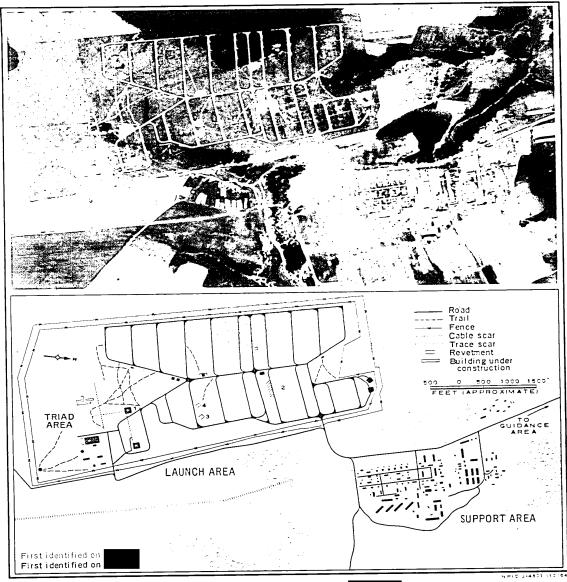


FIGURE 3. MOSCOW SAM SITE E15-1,

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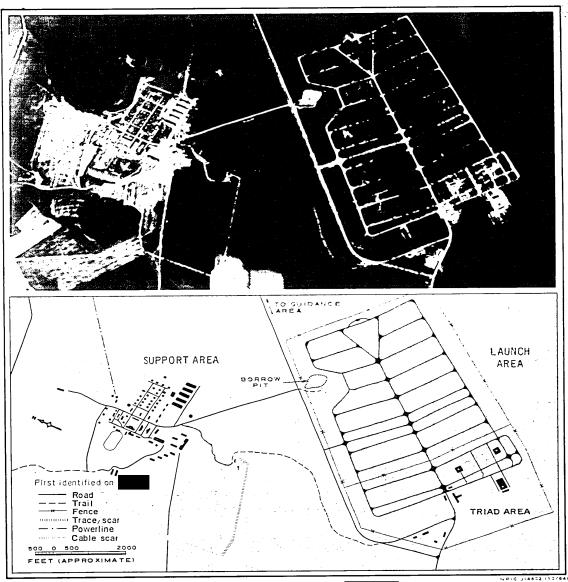


FIGURE 4. MOSCOW SAM SITE E24-1,

25X1D

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TOP SECRET CHESS RUFF		CHESS RUFF		
	TALE	andle Via NT-KEYHOLE 31 System Only 25X1D	TCS-8467/64 NPIC/R-918/64	
	25 <u>X</u> 1D 25X1D	TRIAD AREA No extensive exterior changes have been observed in the triad area between and the coverage. Construction activity is still noted throughout the area. LAUNCH AREA	guidance area during the same time span. SUPPORT AREA Two traces or ground scars, portrayed as roads in previous reports, have been identified on the west side of the site on the late photography. One approaches the site from the south, crosses the site service road, and extends northward. The other branches off it, extends	
	25X1D	No changes have been observed in the launch area between coverage. GUIDANCE AREA	east, and terminates at an unidentified structure measuring approximately 30 by 10 feet (Figure 4, item 1). Both traces/scars were present as early as	2
		No changes have been observed in the 25X1D	25X1D	25X1D 25X1D
_	25X1D	MOSCOW SAM		25X1D
	25X1D	This site (Figure 5) is located at 56-20-00N 36-48-27E, approximately 45 nm northwest of Moscow. The last detailed NPIC report dealing with the site 3/* utilized photography dated The following changes and additions have been derived from	just northwest of the large triad building. This building probably was present on coverage but was not clearly defined. A probable security building 20 by 20 fee (item 3) has been identified on the south side of the triad access road, along the inner security fence. This building may have been present on earlier coverage, but was not discernible because of a thick stand of trees in the area.	· t f t t t
	25X1D 25X1D	TRIAD AREA No extensive exterior changes were noted in the building triad between	The previously reported low-profile pos sible revetting (item 4) observed along 1 ri	ib
	25X1D	The previously reported probable passageway or conduit connecting the large triad building with the unidentified building northwest	road can now be confirmed as a revetmen It is U-shaped and measures 160 by 125 b 160 feet.	25X1D
	25X1D	of it is not visible on any of the 4 coverages. The coverage revealed a ring 85 feet in diameter (Figure 5, item 1), similar to that observed on the roofs of other triad buildings, on the ground adjacent to the west small triad building.	GUIDANCE AREA No apparent change has occurred in the guidance area between the coverages.	
	_	A 75- by 30-foot building (item 2) has been newly identified on Except for NPIC R-836 84 (Sep 64), which touched on it briefly.	SUPPORT AREA The following structures have been newlidentified in the support area on cover	
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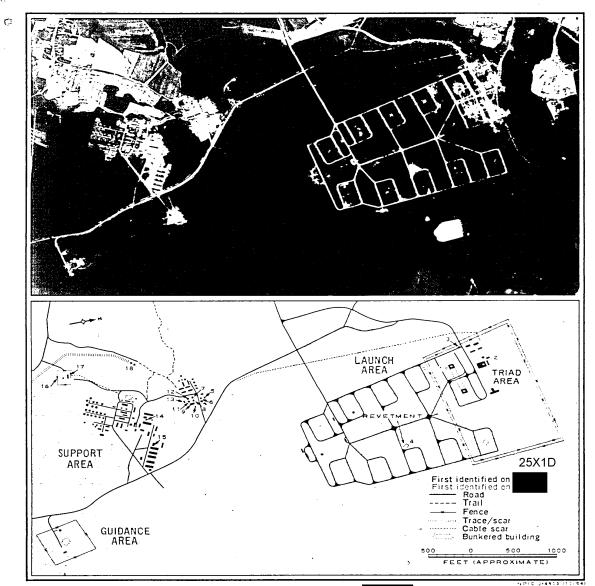


FIGURE 5. MOSCOW SAM SITE E33-1,

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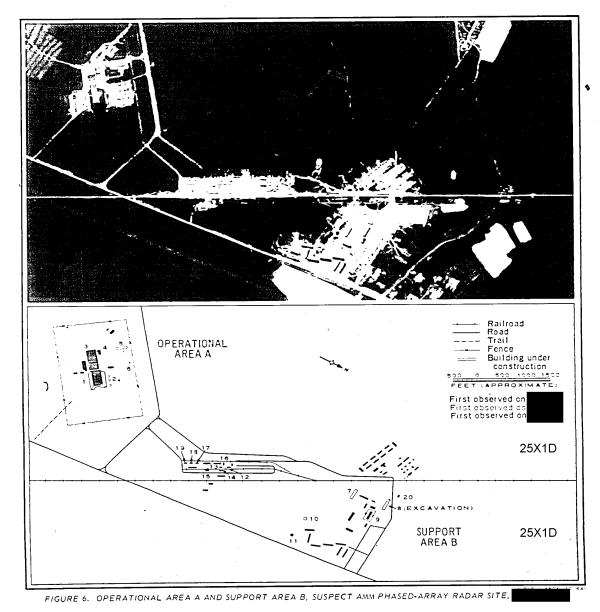
TOP SECRET CHESS RUFF

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- 9 -

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Handle Via TALENT-KEYHOLE TCS-8467/64 Control System Only 25X1D NPIC/R-918/64 25X1D but stack was not discernible then. Re-Some of the buildings were presvised dimensions of building are 120 by photography but were not ent on the 30 feet (reported previously as 60 by identified on it. Building 55 by 25 feet, probably flat roofed 30 feet). Building /5 by 45 feet (item 15) (item 5) Probable board fence 435 by 435 feet (item Building 55 by 25 feet, probably gable 16), enclosing previously reported buildroofed (item 6) ing 140 by 50 feet and Building 50 by 35 feet, probably gable Probable earthen wall (item 17) with an roofed (item 7) opening at center through which a linear Probable storage tank 30 feet in diameter scar extends from the latter building (item 8) toward the support area Building 170 by 40 by 20 feet (item 9). In addition, the late coverage reveals It na rows at north end, and in previous rethe extension of a ground trace which was first ports has been portrayed as 2 buildings. coverage. The trace ap-Building 40 by 20 feet, probably flat roofed visible on the proaches the support area from the south and (item 10) passes west of it, and on the coverage Building 75 by 35 feet, undetermined roof terminated at 2 circular structures approxiconfiguration (item 11) mately 20 feet in diameter (item 18); by late Building 55 by 25 feet, probably gable it had been extended to the site service 25X1D roofed (item 12) road. Building 125 by 35 feet, probably gable No apparent changes in the support area roofed (item 13) were observed on the late Stack (item 14) adjacent to west side of photography; however, the area was previously reported building. Building covered by scattered clouds on all 3 coverages. coverage was first identified on SUSPECT AMM PHASED-ARRAY RADAR SITE, NARO-FOMINSK 25X1D port Area B was provided by The suspect AMM phased-array radar site 25X1D is located at 55-29-50N 36-41-10E, 7 nm north-OPERATIONAL AREA A 25X1D northwest of Naro-Fominsk and 35.7 nm west-Construction on the inverted V-shaped southwest of Moscow (Figures 6 and 7). The structure, which has been designated DOG last detailed NPIC report dealing with all 4 25X1D HOUSE, continues at an apparently steady rate areas of the site $\frac{4}{2}$ was based on photography of (Figure 6, item 1). The band of light-toned An NPIC 25X1D material first observed on coverage near

report based on coverage of

B have been derived from

5/ dealt with Operational Area A

exclusively. The following additions and changes

at all the component areas except Support Area

25X1D

west face on

by late

the top of the north-northwest face of the DOG

HOUSE had been extended across the entire

width by late The tower crane (item 2)

observed near the center of the north-north-

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had been moved to the west

which indicates that the crane is

25X1D

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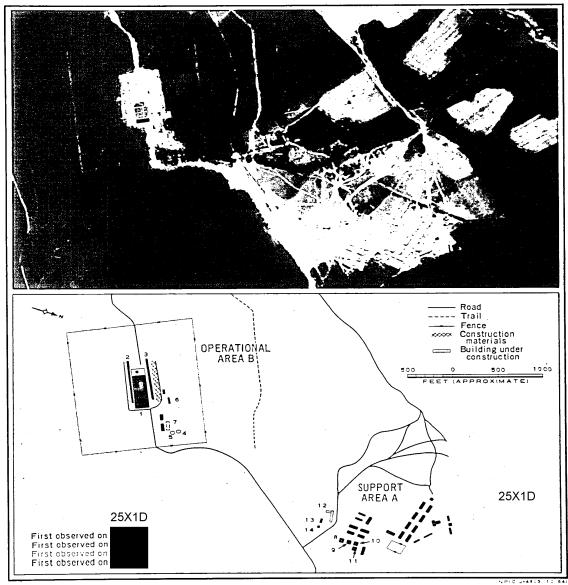


FIGURE 7. OPERATIONAL AREA B AND SUPPORT AREA A, SUSPECT AMM PHASED-ARRAY RADAR SITE,

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25X1D

being used to apply the material. By the crane had been moved to the opposite end of the DOG HOUSE. A light-toned surfacing material was being applied to the west end of the entire the roof in late roof had been covered with the material.

Construction progress was observed at the possible control building (item 3), also. Adarktoned, possibly bituminous material, first observed being applied to the building's roof on overed the entire length of the roof by The annex (item 4) at the northwest corner of the control building was attached to

it by a covered wing or passageway by late approximately 85 percent of the annex had been roofed.

Two buildings added to Operational Area A have been newly identified. These are a T-shaped building 240 by 90 by 45 feet (item 5), located north of the control building and still under construction on the photography, and a probable security building 25 by 25 feet (item 6), located just inside the northwest fenceline. The 2 buildings were first coverage. observed on the

OPERATIONAL AREA B

Construction on the suspect control building (Figure 7, item 1) continues, and it is determined now to be approximately 655 by 220 feet. A black surfacing material, possibly bituminous, was being applied to the east end of the roof on coverage. By the material had been applied to about 75 percent of the roof. Two walls under construction (items 2 and 3), approximately 780 and 740 feet long and 35 feet thick, parallel the north and south sides of the suspect control building and extend approximately 195 feet west of the coverage a probable tank building. On (item 4) and a circular excavation for a second tank (item 5) were observed. By

walls of both were visible and the tanks measin diameter. Between coverage of ured a building 105 by 35 feet (item 6) and the footings for a building 160 by 55 feet (item 7) were constructed. A security fence with approximate dimensions of 2,410, 1,945, 2,375, and 1,900 feet was built around Operational Area B during the same period. Open storage of construction material was observed throughout the area on all 4 coverages.

SUPPORT AREA A

The following buildings have been newly identified, the first 5 on the coverage and the last 2 on coverage:

4 Buildings 60 by 35 feet, gable roofed (Figure 7, items 8-11)

Building under construction, 185 by 30 feet, probably flat roofed (item 12), with a wing 50 by 20 feet on its south side Building 60 by 30 feet, probably gable roofed (item 13)

Building 35 by 30 feet, probably gable roofed (item 14)

Construction material was observed in the area on all 4 coverages.

SUPPORT AREA B

The following new structures have been identified, all on the coverage except the last, which was identified on the coverage:

Building under construction, 295 by 50 feet (Figure 6, item 7)

Probable building under construction 245 by 55 feet (item 8). (Only an excavation was observed on all 3 missions.)

Board security fence 290 by 235 feet (item 9). Surrounds a previously reported multistory apartment-type building, 220 by 45 feet and 30 feet high. Standpipe (item 10)

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Unidentified structure 35 by 20 feet (item 11)
Building 175 by 30 feet, gable roofed
 (item 12)
Building 90 by 20 feet, gable roofed (item 13)
Building 40 by 20 feet, flat roofed (item 14)

Building 40 by 20 feet, flat roofed (item 14)
Building 125 by 80 feet, gable roofed
(item 15)

Building 100 by 35 feet, gable roofed

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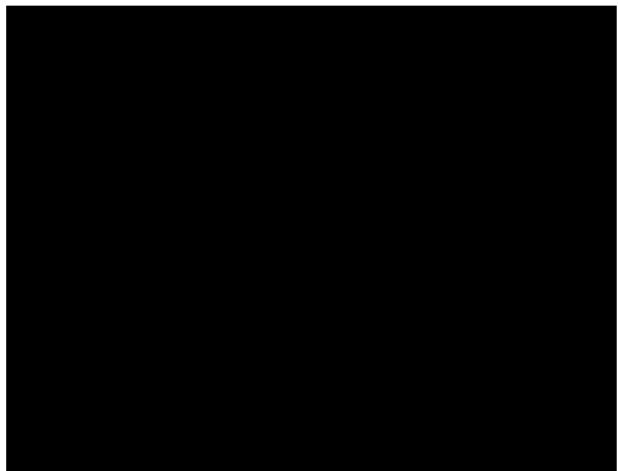
(item 16)

Building 70 by 20 feet, probably flat roofed (item 17)

Building 70 by 20 feet, gable roofed (item 18)
Building 70 by 20 feet, probably gable
roofed (item 19)

Building 40 by 30 feet, probably gable roofed (item 20)

25X1D



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SUSPECT SPACE TRACKING FACILITY, KIRZHACH AREA

ures 9-13) consists of 2 interferometer sites--1 suspect and 1 confirmed--a support area, and an area of unidentified activity. The facility is situated 13 nm west-southwest of the town of Kirzhach and approximately 35.8. nm northeast of Moscow, in generally flat terrain. An extensive system of drainage ditches indicates marshy soil, particularly near the suspect interferometer site.

1 plus configuration was under construction; the support area was under construction in

The last detailed NPIC reportualing with the facility 6/ was based on KEYHOLE photography through The following information has been derived from Missions

SUSPECT INTERFEROMETER SITE

The suspect interferometer site (56-05-05N 38-29-25E) consists of a secured area approximately 8,785 by 5,730 feet (approximately 1,156 acres) containing numerous control-type buildings and a network of probable cable scars (Figure 10). Scars 6,875 feet long form 2 overlapping plus configurations that suggest interferometers with exceptionally long baselines. A building 70 by 55 feet with a possible antenna on the roof is positioned at each of the 8 termini, and a build-

The suspect space-tracking facility (Fig-: Fing 125 by 125 feet is positioned at both bisection points. Two other buildings, 305 by 110 feet, are arranged end-to-end between the bisection points. The 2 pluses overlap by 50 percent and in such a way as to give the site a rectangular outline. A line drawn through the bisection points is oriented on an azimuth of approximately

> The plus configuration arrangement of elements is ideal for phase-measuring techniques, and when combined with exceptionally long baselines, would offer great accuracy in space tracking.

INTERFEROMETER SITE

This site (56-04-00N 38-30-25E), which apparently is unsecured, consists of twin, adjacent interferometers and a probable control center (Figure 11).

The interferometers are of the standard Soviet type, such as are deployed singly at the Tyuratam and Kapustin Yar/Vladimirovka Missile Test Centers and at other locations throughout the USSR. The clearings for the baselines, which bisect each other at right angles, are from 1,130 to 1,290 feet long. An apparent modification consists of ground scars which form probable leg extensions at the northwest interferometer. Near the bisection point of each interferometer is a partially buried control

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FIGURE 9. SUSPECT SPACE-TRACKING FACILITY,

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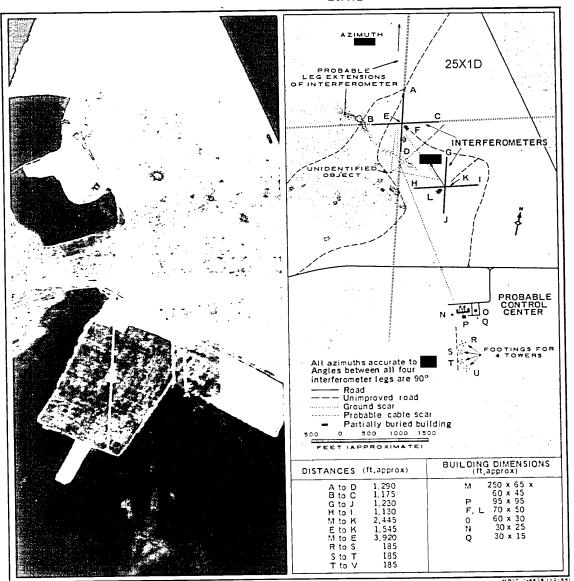


FIGURE 11. INTERFEROMETER SITE, SUSPECT SPACE-TRACKING FACILITY.

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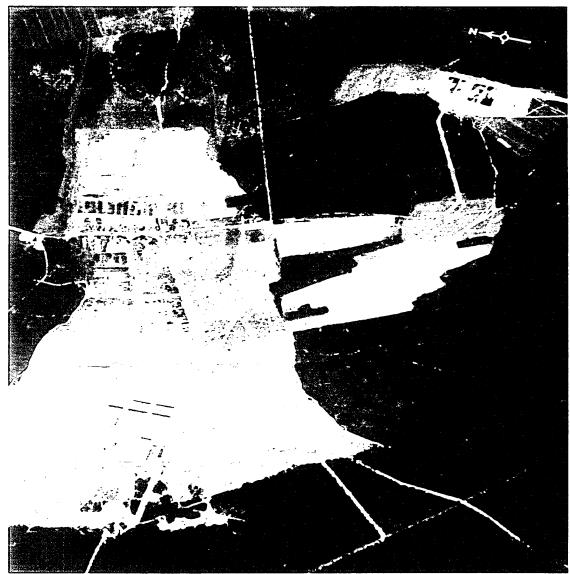


FIGURE 12. SUPPORT AREA, SUSPECT SPACE-TRACKING FACILITY,

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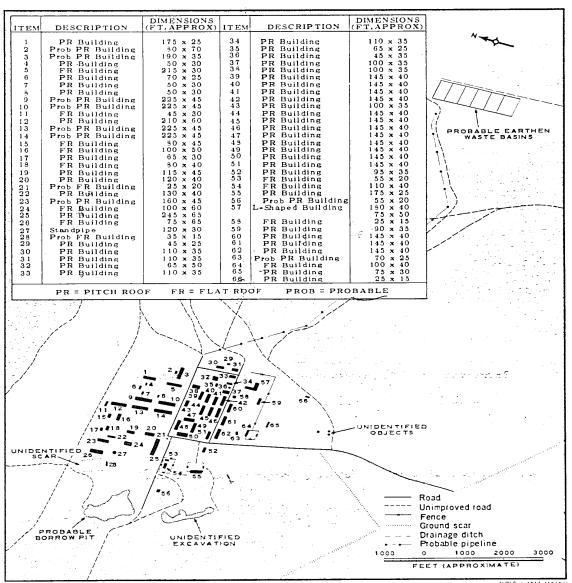


FIGURE 13. LAYOUT OF SUPPORT AREA, SUSPECT SPACE-TRACKING FACILITY.

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conjunction.

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building approximately 70 by 50 feet. A line drawn through the bisection points is oriented on an azimuth of approximately. The similarity of this azimuth to that of the suspect interferometer site (all azimuths are accurate to within plus or minus indicates that the 2 sites may operate in

The probable control center is about 2,000 feet south of the interferometers. It consists of a large U-shaped building with a smaller, square building apparently connected to its south side and, just south of these buildings, footings for at least 4 antenna poles. Although no actual antennas can be identified, the arrangement of the footings indicates high-frequency communications. At least 3 other small, miscellaneous buildings are in the area.

Another, nearly identical twin interferometer site has been located at Talsi, USSR, at 57-17N 22-35E. 7/

SUPPORT AREA AND AREA OF UNIDENTIFIED ACTIVITY

A sizable support area (Figures 12 and 13) is located between the 2 interferometer sites and offset somewhat to the east. It contains over 65 buildings and structures (types and dimensions are given in Figure 13).

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25X1D REFERENCES

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MABS OR CHARTS

- DIA. US Air Target Chart, Series 200, Sheet 0154-22HL, 2d ed, Mar 63, scale 1:200,000 (SECRET) = 5
- DIA. US Air Target Chart, Series 200, Sheet 0154-23HL, 2d ed, Apr 63, scale 1:200,000 (SECRET)
- DIA: US Air Target Chart, Series 200, Sheet 0167-4HL, 2d ed, Mar 63, scale 1:200,000 (SECRET)
- DIA. US To Proper Chart, Section 200; Seeds, 9157-10HL, 2d ad, Feb 63, seafe-1:250,650 (SECRET)

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DOCUMENTS

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Apr

2. NPIC. R-280 64, Passible AVV-Associated Facility, SAV Site E15-1, Vascow, USSR, May 64 (TOP SECRET CHESS RUFF)

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- NPIC. R-435 64, Changes at Suspect ANN Phased-Array Radar, Naro-Fominsk, USSR, Jun 64 (TOP SECRET CHESS RUFF)
- 5. NPIC. R-621/64, Suspect AMM Phased-Array Radar, Naro-Fominsk (Moscaw Area), USSR, Jul 64 (TOP SECRET CHESS RUFF)
- 6. NPIC. R-103'64, Possible Antimissile Missile Associated Facilities, Moscow Area, USSR, Feb 64 (TOP SECRET CHESS RUFF)
- 7. E-800.'64, OAK Part II,

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NPIC. R-536/64, Unidentified Activity at SA-1 SAM Sites, Moscow, USSR, Sep 64 (TOP SECRET CHESS RUFF)

REQUIREMENT

CIA. C-RR4-81,664

RELATED DOCUMENT

NPI@PROJECT

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